modifications and this application is intended to cover any variations, uses, or adaptations of the invention following, in general, the principles of the invention and including such departures from the present disclosure come within known or customary practice within the art to which the invention pertains and may be applied to the essential features hereinbefore set forth, and follows in the scope of the appended claims.

What is claimed is:

Claims

1. A method for treating or preventing congestive heart failure in a mammal, said method comprising administering a polypeptide comprising an epidermal growth factor-like (EGF-like) domain to said mammal, wherein said EGF-like domain is encoded by a neuregulin NRG-2 gene, wherein said administering is in an amount effective to treat or prevent heart failure in said mammal.

2. The method of claim 1, wherein said polypeptide comprises the amino acid sequence set forth in SEQ ID NO:2 of WO 97/09425, the amino acid sequence set forth in SEQ ID NO:4 of WO 97/09425, the amino acid sequence set forth in SEQ ID NO:7 of WO 97/09425, or the amino acid sequence encoded by the nucleic acid sequence set forth in GENBANK ACCESSION NO.: AB005060.

3. The method of claim 1, wherein said mammal is a human.

4. The method of claim 1, wherein said congestive heart failure results from hypertension; ischemic heart disease; exposure to a cardiotoxic compound; myocarditis; thyroid disease; viral infection; gingivitis; drug abuse; alcohol abuse; periocarditis; atherosclerosis; vascular disease; hypertrophic cardiomyopathy; acute myocardial infarction; left ventricular systolic dysfunction; coronary bypass surgery; starvation; an eating disorder; or a genetic defect.

5. The method of claim 4, wherein said mammal has undergone a myocardial infarction.

6. The method of claim 4, wherein said cardiotoxic compound is an anthracycline; alcohol; or cocaine.

7. The method of claim 6, wherein said anthracyline is doxorubicin, or daunomycin.

8. The method of claim 7, wherein an anti-ErbB2 or anti-HER2 antibody is administered to said mammal before, during, or after anthracycline administration.

9. The method of claim 4, wherein said cardiotoxic compound is an anti-ErbB2 or anti-HER2 antibody.

10. The method of claim 4, wherein said polypeptide is administered prior to, during, or after exposure to said cardiotoxic compound.

11. The method of claim 1, wherein said polypeptide is administered prior to or after the diagnosis of congestive heart failure in said mammal.

12. The method of claim 1, wherein said polypeptide is administered to a mammal that has undergone compensatory cardiac hypertrophy.

13. The method of claim 1, wherein administration of said polypeptide maintains left ventricular hypertrophy.

14. The method of claim 1, wherein said method prevents progression of myocardial thinning.

15. The method of claim 1, wherein administration of said polypeptide inhibits cardiomyocyte apoptosis.

16. The method of claim 1, wherein said polypeptide is administered by administering an expression vector encoding said polypeptide to said mammal.